

ARKANSAS RIVER NEAR LITTLE ROCK, ARK.

LETTER

FROM

THE ACTING SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORT ON PRELIMINARY EXAMINATION OF ARKANSAS RIVER, JUST BELOW LITTLE ROCK, ARK., AND AROUND FOURCHE ISLAND, WITH A VIEW TO THE IMPROVEMENT OF NAVIGATION.

MARCH 31, 1914.—Referred to the Committee on Rivers and Harbors and ordered to be printed, with illustration.

WAR DEPARTMENT,
Washington, March 30, 1914.

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, dated 28th instant, together with copy of report from Capt. A. B. Putnam, Corps of Engineers, dated August 26, 1913, with map, on preliminary examination of Arkansas River just below Little Rock, Ark., made by him in compliance with the provisions of the river and harbor act approved March 4, 1913.

Very respectfully,

HENRY BRECKINRIDGE,
Acting Secretary of War.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, March 28, 1914.

From: The Chief of Engineers, United States Army.

To: The Secretary of War.

Subject: Preliminary examination of Arkansas River just below Little Rock, Ark.

1. There is submitted herewith, for transmission to Congress, report dated August 26, 1913, with map, by Capt. A. B. Putnam, Corps of

Engineers, on preliminary examination called for by the following item contained in the river and harbor act approved March 4, 1911:

"Arkansas River just below Little Rock, Ark., and around Fourche Island, with a view to the improvement of navigation."

2. The improvement desired by local interests at this locality is the protection of the banks at two points where their caving threatens levees on Fourche Island. The present project for the improvement of the Arkansas River which provides for snagging operations, dredging, contraction works, and revetment where necessary, includes the reach now under consideration. The district officer is of the opinion that the commerce involved does not warrant the work and the division engineer concurs with his conclusion that the locality is not worthy of improvement by the General Government at the present time.

3. This report has been referred, as required by law, to the Board of Engineers for Rivers and Harbors and attention is invited to the accompanying report, dated March 10, 1914, concurring with the district officer and the division engineer.

4. After due consideration of the above-mentioned reports, I concur with the views of the district officer, the division engineer, and the Board of Engineers for Rivers and Harbors, and therefore report that the improvement by the United States of Arkansas River just below Little Rock, Ark., and around Fourche Island, in the manner apparently desired by the interests concerned, is not deemed advisable at the present time.

DAN C. KINGMAN,
Chief of Engineers, U. S. Army.

REPORT OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS

[Third indorsement.]

THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
March 10, 1914.

To the CHIEF OF ENGINEERS, UNITED STATES ARMY:

1. The improvement contemplated by this investigation is in the interests of a local drainage district whose general plan contemplates the drainage and protection by levees of the lands lying on Fourche Island. At two points within the area of this district the banks of the Arkansas River are caving, endangering the integrity of the levees. The improvement sought is the protection of these banks against further erosion.

2. The district officer states that no definite estimate of the commerce passing over this portion of the river can be given, but that the total freight handled by the boats engaged in traffic between Little Rock and Memphis amounted to 5,545 tons during 1912, and that probably not more than one-half of this moved over the portion of the river under examination. The amount of bank protection desired is approximately $1\frac{1}{2}$ miles, and the district officer is of opinion that the commerce involved is insufficient to justify the necessary expenditure. The division engineer states that there is no reason for revetting Fourche Island that is not applicable to most of the other bends in the river, and he concurs in the opinion that the locality is not worthy of improvement at the present time.

3. Interested parties were informed of the unfavorable tenor of the district officer's report and given an opportunity of submitting their views to the board. Several communications from interested parties were received and given consideration, and on March 10, 1914, Hon. T. Robinson, United States Senator, and Hon. H. M. Jacoway, Member of Congress, came before the board in behalf of the improvement and presented a written statement.

4. The general project for the improvement of the Arkansas River, which provides for snagging operations, dredging, contraction works, and revetment where necessary, includes the reach now under consideration. The conditions at these bends are similar to those at many other localities. The prevention of erosion at this particular locality would probably confer some local benefit, but would have little or no effect upon general commerce and navigation. Therefore the board reports, in concurrence with the views of the district officer and the division engineer, that it is not advisable for the Federal Government to undertake the improvement of "Arkansas River just below Little Rock and around Fourche Island, with a view to the improvement of navigation."

5. In compliance with law, the board reports that there are no questions of terminal facilities, waterpower, or other related subjects involving any material bearing upon the improvement of navigation at this locality.

For the board:

W. M. BLACK,
Colonel, Corps of Engineers,
Senior Member of the Board.

PRELIMINARY EXAMINATION OF ARKANSAS RIVER, ARK.

UNITED STATES ENGINEER OFFICE,
Little Rock, Ark., August 26, 1913.

From: The District Engineer Officer.

To: The Chief of Engineers, United States Army
(Through the Division Engineer).

Subject: Preliminary examination of Arkansas River, near Little Rock, Ark.

This is the report upon the preliminary examination directed by the river and harbor act of March 4, 1913, as follows:

The Secretary of War is hereby authorized and directed to cause preliminary examinations and surveys to be made at the following-named localities * * * Arkansas River just below Little Rock, Ark., and around Fourche Island, with a view to the improvement of navigation.

The request for this examination originated from a local organization known as Fourche Drainage District—a special improvement district authorized by the Arkansas Legislature for the purpose of draining and preventing overflows in the Fourche Valley south and east of Little Rock, Ark. The territory embraced in this drainage district and the extent of overflowed lands are shown in the report on the map of Arkansas River, Little Rock to mouth of Fourche River, accompanying this report. The general plan or project for the work contemplated by the Fourche Drainage District in addition

to clearing and straightening the channel of and building a levee along Fourche Bayou included the construction of short levees along the right bank of the Arkansas River at mile 162 (Browns Bend) and at mile 167 (Arbuckle Bend) and rebuilding a dam across the upper prong of Fourche Bayou. The levees were built as contemplated. At both of these places the Arkansas River bank is caving and has been for several years, and the desire of the interested parties is that these banks be revetted or otherwise protected so that the levees would not be destroyed through the continuance of the caving. The Fourche Drainage District was abolished by the last legislature, and another organization limited in territory to Fourche Island is now the interested one. Its desire is the same as that of the former organization; i. e., the prevention of any further caving of the river banks in front of the levees along the island front. I inclose herewith copies of letters to and from County Judge Joe Asher, these being the only communications on this subject.

3. Fourche Island is formed by the Fourche Bayou emptying into the Arkansas River through two mouths. Many years ago, probably some time in the fifties, a dam was built across the upper channel of Fourche Bayou to prevent backwater from the Arkansas River flowing up the stream, thereby reducing the backwater heights in the valley directly south of Little Rock. At about the same time a levee was built along the right bank of the Arkansas River from the upper mouth of Fourche along the island front to the lower mouth of the bayou. A portion of this old levee is seen on Jones Island (mile 165)—the Jones Island cut-off not having been made when the levee was built—and along the lower end of Fourche Island opposite miles 159–161, the remaining portions, save a small section opposite mile 164, having caved into the river. The dam across the upper prong of Fourche Bayou was destroyed by a freshet from the headwaters in January, 1907. The Arkansas was comparatively low at that time, being about half-bank full stage. The work projected by the Fourche Drainage District was to produce the same protection against overflow as was provided for in the old work. The work of the present Fourche Island district does not contemplate anything further than protection against overflow on the island.

4. At mile 162 (Browns Bend) and mile 167 (Arbuckle Bend) the river bank is slightly lower than the general bank height around the island. At these points, the Arkansas River occasionally overtops the bank, the overflow water following a generally southwestward course to Fourche Bayou. The interested parties express a fear that these overflow waters, especially in the case of those leading out from Arbuckle Bend, will create a new channel for the river following a chain of cypress lakes lying southwest of that bend. I have been over this ground and there are no evidences of any surface section indicating the development of any such channel. The likelihood of the river caving into these lakes is so remote that it may be classed as imaginary.

5. A definite statement can not be made regarding the amount of river commerce passing over this portion of the river. In the winter and spring a steam packet boat makes weekly trips between Little Rock, Ark., and Memphis, Tenn. The other commerce is confined to that moved by a couple of gasoline boats. It is not possible to tell from the commercial reports made by them what portion of their business

as handled on other sections of the river. For the calendar year 12, the total freight moved by these boats was 5,545 tons. It is probable that not over one-half of this moved over the portion of the river under examination. The amount of bank protection desired by the interested parties is approximately one and a half miles. The commerce involved does not warrant the work, therefore I must report that the river in this locality is not worthy of improvement by the General Government to the extent desired by the interested parties at this time.

6. There are no questions of terminal facilities, water power, or other related subjects involved in this examination.

7. A list of the names of the persons to whom notice of this adverse report has been sent is inclosed herewith.

A. B. PUTNAM,
Captain, Corps of Engineers.

[First indorsement.]

OFFICE OF DIVISION ENGINEER,
WESTERN DIVISION,
St. Louis, Mo., August 28, 1913.

1. To the Chief of Engineers, United States Army, forwarded.
2. There is no probability of the river leaving its present channel and flowing into the lakes on Fourche Island, and while revetment at any locality tends to improve navigation there is no reason for vetting Fourche Island that is not applicable to most of the other points in the river. This locality is not, therefore, considered worthy of improvement by the General Government at the present time.

C. McD. TOWNSEND,
Colonel, Corps of Engineers.

[For report of the Board of Engineers for Rivers and Harbors see page 2.]

LETTER OF CAPT. A. B. PUTNAM.

ENGINEER OFFICE, U. S. ARMY,
Little Rock, Ark., July 30, 1913.

Judge JOE ASHER,
Little Rock, Ark.

MY DEAR JUDGE: The river and harbor act of March 4, 1913, provided for an examination of the Arkansas River below Little Rock and around Fourche Island.

It is my understanding that the old Fourche Drainage District, now abolished, is responsible for obtaining this authority, and I have been told by Judge Kavanaugh that you are the particular party to whom I should refer for any information concerning this district.

As I am about to submit this report to Washington, it is my desire to receive some statement as to the effect which any repairs to the river bank are supposed to have on the navigation of the Arkansas River in the vicinity of Fourche Island. The effect of such improvement on the drainage area I should also like to have.

It must be borne in mind, however, that Congress limits the examinations and surveys to expression of opinion as to whether or not any proposed improvement is in the interest of navigation; that is, whether or not the improvement is demanded to preserve the navigable capacity of the stream in question.

I should be glad to receive some sort of a written statement from you regarding this matter as soon as possible in order that my report may be expedited, and, if you prefer, I should be glad to speak to you at such time as may be convenient.

Very truly yours,

A. B. PUTNAM,
Captain, Corps of Engineers.

LETTER OF JUDGE JOE ASHER.

JUDGE OF THE COUNTY, PROBATE, AND
JUVENILE COURTS OF PULASKI COUNTY,
Little Rock, Ark., August 23, 1913.

Mr. A. B. PUTNAM,
*Captain, Corps of Engineers, United States Army,
New City Hall, City.*

MY DEAR CAPTAIN: In reply to your letter of July 30, it is true that the Fourche Drainage District, which is now abolished, was responsible for obtaining the authority for examination of Arkansas River below Little Rock around Fourche Island. The last legislature abolished the commission after they did considerable work in surveying and building the levees on Fourche Island. At that time there was another authority in force for the purpose of building a levee around Fourche Island to keep it from overflows and drainage, but it had no authority to do any work up Fourche Bayou toward Little Rock; it only embraced Fourche Island.

The commissioners appointed by the legislature failed to qualify, and as soon as the Fourche Drainage Board was abolished it was my duty to appoint a commission to take charge of the work on Fourche Island, which I did by appointing John R. Frazier, Geo. Pye, and Harry Cates, and they are the ones in authority over the work at the present time. However, I have somewhat of a supervising authority over them.

The Fourche Bayou—after Fourche Dam went out in 1907, the upper mouth of the stream—now discharges larger quantities of water than the lower mouth. The current sometimes is quite strong, and it has a tendency to erode the right bank of the river to considerable extent every spring, so much that a portion of the levee constructed on the island is already in the river. The steamboat channel is now on the right bank of the river instead of the left, where it was a year ago, and the caving of the right bank is apparently widening the river to a great extent there and water out of Fourche is forming a sand bar across it. From casual observation it appears to me that the river is very wide at the island, and it is now gradually growing and doing away with the old steamboat channel entirely.

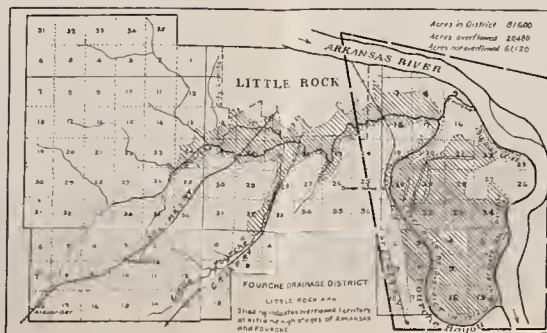
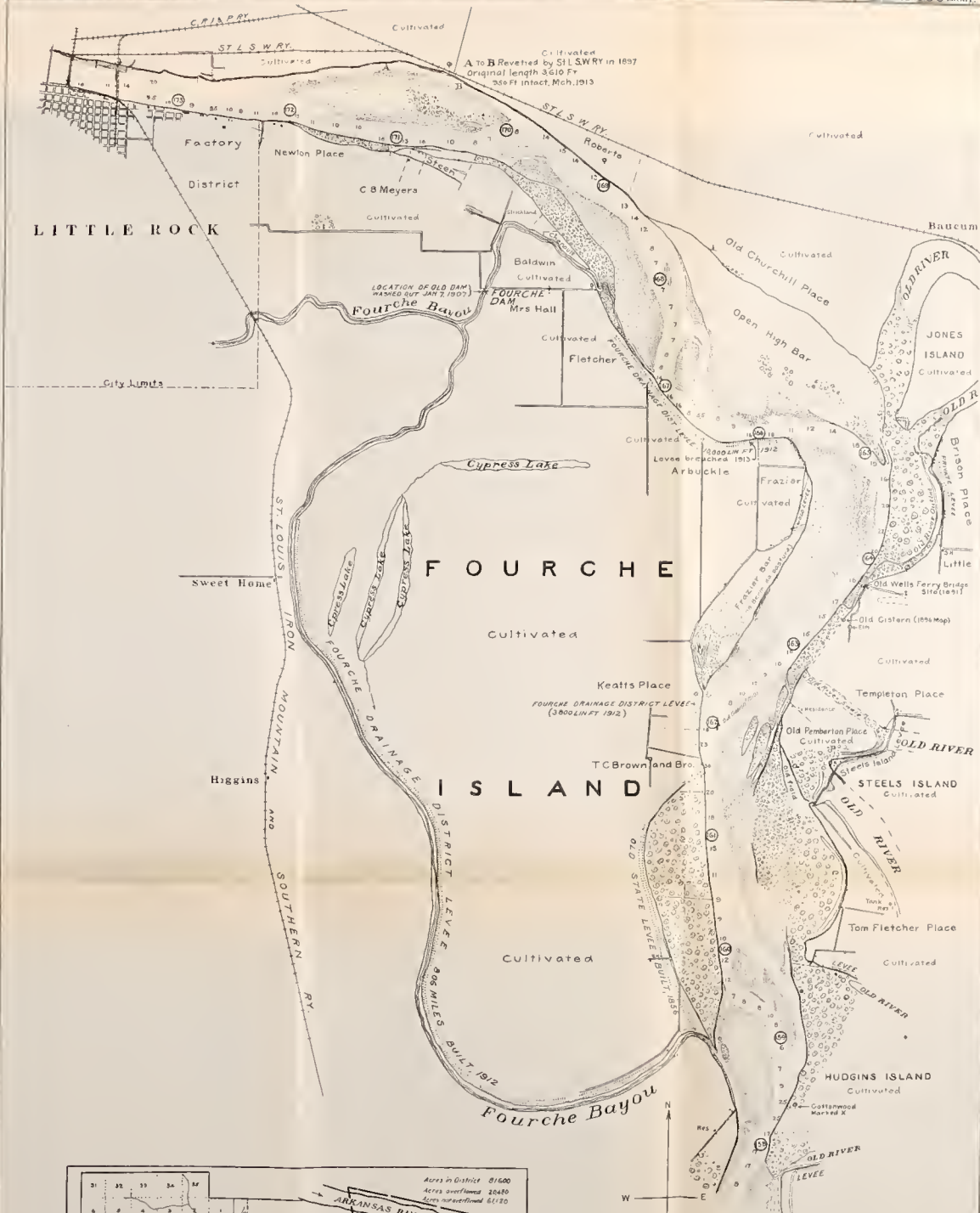
I believe it is very desirable to make repairs in the Arkansas River in that vicinity as such repairs will tend to stop the erosion of the bank. By preventing further erosion the river will be held in its present course, and the bar above and below the bend, where the erosion occurs will be more stationary and the crossings will tend to deepen and improve navigation.

Another consideration of this bank erosion is that it is moving the mouth of Fourche Bayou farther downstream and extending the bar opposite the same, so that it is a greater obstruction in the river channel.

The third consideration of this bank improvement is that it will prevent the Arkansas River from cutting back into the chain of lakes approximately in the center of Fourche Island and thereby keeping it from taking a new channel approximately parallel to and some distance west of its present channel. The erosion in progress at the present time has also caused damage to navigation and has destroyed several established landings and freight stations, thereby forcing planters to abandon the use of the river in transporting supplies.

Yours, truly,

JOE ASHER, *County Judge.*



USEngineer Office
Little Rock, Ark
July 24, 1913
Approved,

William
Captain, Corps of Engineers.

To accompany report of Aug 26, 1913 on preliminary examination of Arkansas River, just below LITTLE ROCK and around FOURCHE ISLAND, with a view to the improvement of navigation

ARKANSAS RIVER, ARK. LITTLE ROCK TO MOUTH OF FOURCHE BAYOU

PREPARED UNDER THE DIRECTION OF
Captain AB Putnam, Corps of Eng'rs U.S.A.

Soundings shown as taken
Little Rock Weather Bureau Gage 50:
Mch 10-21, 1913

SCALE

Surveyed by J.R.V. and W.P.
Drawn by J.R.V.
Reduced and traced by J.P.
Submitted by J.P. 7/24/13
Note: Books Nos 60A 50B and 50C

P 722 Or 2

